KOROLEVA, V.F.

The ED-1 flaw detector. Biul. tekh.-ekon. inform. Gos. nauch. issl. nauch. i tekh. inform. 17 no.9:40-41 S '64 (MIRA 18:1)

KOROLEVA, V.P.

Antibiotic sensitivity of pathogenic fungi. Antibiotiki 9 no.1:69-73 Ja '64. (MIRA 18:3)

1. Laboratoriya antibiotikov (zav. - prof. A.Kh.Sarkisov) Vsesoyuznogo instituta eksperimental'noy veterinarii, Moskva.

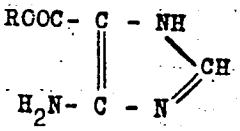
5 (3)

AUTHORS: Kulev, L. P., Koroleva, V. R. SOV/79-29-7-66/83

TITLE: Some Esters of 4(5)-Amino-imidazole-5(4) Carboxylic Acid (Nekotoryye efiry 4(5)-aminoimidazol-5(4)-karbonovoy kisloty)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2401 - 2403 (USSR)

ABSTRACT: From among these esters only the methyl and ethyl ester are described in publications (Ref 1). Since the derivatives of amino-imidazole carboxylic acid are of great interest in physiological respects, the authors synthesized a number of esters of this class according to the general formula



and investigated their properties. The initial product 4(5)-nitro-imidazole-5(4) carboxylic acid was obtained from 4(5)-oxy-methyl imidazole (Refs 4,5). With the exception of the imidazolyl-methyl ester of this acid, which was synthesized with

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iron sulfate in ammoniacal medium, all the other nitro esters were reduced by means of cast iron turnings in the presence of electrolytes. The free esters of amino-imidazole carboxylic acid have basic nature, yield salts with strong mineral acids and complex compounds with picric acid of the composition 1 : 1 and 1 : 2. Their hydrochlorides are well soluble in water and organic solvents. They were obtained by neutralization of the aqueous hydrochloride solutions with soda at low temperature, with subsequent extraction of the bases from the dry residue with anhydrous alcohol. The colorless crystals (except the oily methyl and isoamyl esters) are readily soluble in alcohol, acetone, and chloroform, but less in water. On exposure to air they darken and become resinous. In contrast with the corresponding nitro-imidazole carboxylic esters, the esters of amino acid exert no hypotensive action, but reduce the cardiac activity more strongly than the others. In this regard the most active of these esters is the isoamyl ester, the least active — the ethyl ester of amino-imidazole carboxylic acid. Only the ethyl-benzoyl-amino-imidazole carboxylic acid ester has a pronounced

Some Esters of 4(5)-Amino-imidazole-5(4) Carboxylic Acid SOV/79-29-7-66/83

antispasmodic effect and also the least toxicity. Pharmacological investigations were made by A. S. Saratikov at the Tomskiy meditsinskiy institut (Tomsk Institute of Medicine). There are 1 table and 5 references, 2 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnic Institute)

SUBMITTED: June 9, 1958

Card 3/3

KOROLEVA, V.R.

Ultraviolet absorption spectra of esters of 4(5)-aminoamidazole-5 (4)-carboxylic acid. Izv.TPI 111:23-25 '61. (MIRA 16:9)

1. Predstavleno professorom doktorom khimicheskikh nauk L.P. Kulevym.
(Imidazolecarboxylic acid--Absorption spectra)

KOROLEVA, V. V.

BLYUMBERG, I.B.; DAVYDKIN, I.M.; KOROLEVA, V.V.

The possibility of using rubber hypo eliminators for the bordering layer. Trudy LIKI no.4:176-178 '56. (MLRA 10:5)

1.Kafedra obshchey fotografii i tekhnologii obrabotki finofotomaterialov.

(Photography--Developing and developers)

BORISENOK, I.T.; GENEROZOV, M.N.; YEREMEYEV, N.V.; KARAMYSHKIN, V.V.; KUZOVKOV, N.T.; BORISENOK, I.T.; KULIKOVSKAYA, N.V.; SAVINOV, G.I., kand.fiz.-mat. nauk, dots. [deceased]; PIROGOV, I.Z.; Prinimali uchastiye: BALAYEVA, I.A.; BALAKIN, B.M.; BELYAYEVA, G.M.; BELYAKOV, V.I.; VELERSHTEYN, R.A.; ZHARKOV, G.M.; KOROLEVA, V.Ye.; LITVIN-SEDOY, M.Z.; POPOV, A.I.; PRIVALOV, V.A.; STUKALOVA, L.M.; CHISTYAKOV, A.I.; SAVVIN, A.B., red.; CHISTYAKOVA, K.S., tekhn. red.

[Laboratory work in theoretical and applied mechanics] Laboratornyi praktikum po obshchei i prikladnoi mekhanike. Moskva, Izd-vo mosk. univ. 1963. 233 p. (MIRA 16:12)

1. Kafedra prikladnoy mekhaniki Moskovskogo gosudarstvennogo universiteta (for Balayeva, Balakin, Belyayeva, Belyakov, Velershteyn, Zharkov, Koroleva, Litvin-Sedoy, Popov, Privalov, Stukalova, Chistyakov).

(Mechanics--Laboratory manuals)

Koroleva, Ye.

KOROLEVA, Ye.

Working with the home labor. Prom. koop. no.9:14 S '57.
(MLRA 10:9)

1. Zamestitel' predsedatelya pravleniya arteli "Mostrikovyaz'."
(Home labor)

KOROLEVA, Ye.A.; MENYAYLOV, N.V.

Experience in ansthesia in surgery for grave forms of scoliosis. Ortop., travm. i protez. 26 no.2:71 F '65. (MIRA 18:5)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir. - chlen-korrespondent AMN SSSR prof. M.V.Volkov). Adres avtorov: Moskva A-299, ul. Priorova, dom 2, TSentral'nyy institut travmatologii i ortopedii.

KOROLEVA, Ye. G. and DUKHANINA, N. N.

"Epidemiological Data on Tertian Malaria With Prolonged Incubation in Pushkin Rayon, Moscow Olbast", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 1, pp 46-56, 1948.

38294 KOROLEVA, YE. I. AND GRODZENSKIY, D. E.

Fosfornyy obmen pri malobelkovoy diete. Biokhimiya. 1949, vyp. 6, s. 511-16. -Bibliogr: 8 na zv.

KOROLEVA, Ye. I.
B.A.

AIII-19

Investigation of phosphorus metabolism on low-protein diet by means of labelled atoms. D. E. Grodzensky and E. I. Koroleva (Biokhimia, 1949, 14, 35—43).—Experiments with rats using radio-active P showed that on a low-protein diet there is a more rapid exchange of P in the body tissues. In the livers of protein-deficient rats, there is a more rapid synthesis of P-containing esters and phospholipins, but a decrease in phosphoprotein formation. Extra hepatic tissues also take part in the accelerated P metabolism.
D. H. Smyth.

Dept. Biochem, Sci Res. Inst. of Nutrition

Д. Э. Гродзенский и Е. И. Королева – L. 24. St. 1949

KAPKOLEVA, Ye. L.

11E

Phosphorus metabolism during a protein-poor diet. D. E. Gradusenskii and E. I. Koroleva, *Biokhimiya* 14, 511-16(1949); *cf. C.A.* 43, 5855.—Expts. with P^{32} showed that the P metabolism increased in rats that had been kept for a long time on a protein-poor diet. The normal P^{i} turnover was observed in rats that had first been fed a protein-poor diet and later were transferred to a normal diet. The phosphorylated products of the intermediate carbohydrate metabolism account for most of the increase in the P metabolism. H. Priestley

Koroleva, E. I.

MD

"The use of labeled atoms in the study of the secretory functions of digestive glands. I. D. E. Grodzenskii, K. S. Zamychkina, and E. I. Koroleva. *Trudy Primenen. Radioaktiv. Izotopov v Med.* (Moscow: Medgiz) 1953, 225-9; *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 5343.—In the bladder and liver bile of the dog P varies between 90 and 105 mg. %. Intravenously injected P^{32} appears in the bile in 30 min. and reaches its max. on the following day. The disproportionately low level of P^{32} in the feces indicates that it is absorbed from the bile in the intestinal tract.

B. S. Levine

Korolëva, Ye. I.

/ Elimination of phosphorus-32 via the intestinal juices II. D. E. Gvodzenskii, K. S. Zamychkina, and E. I. Korolëva. (N.D *Trudy Primenen. Radioaktiv. Izotop. v Med.* (Moscow:Medgiz) 1953, 230–3; *Referat. Zhur. Khim. Biol. Khim.* 1955, No. 7089.—Dogs with fistulas to the small intestine were used and the juice was obtained following mechanical stimulation. A neutral isotonic $Na_2HP^{32}O_4$ soln. was injected intravenously. P^{32} compounds were found circulating in the blood 20 days after the intravenous injection. In 10 days 13.05% of the P^{32} had been eliminated *via* the kidneys, and 3.75% *via* the intestine. At the end of the first hr. 0.75% of it had been eliminated *via* the intestinal juices. More than 50% of the total P in the intestinal juice is in the form of inorganic P. It is believed that P entering the intestine with the bile is largely reabsorbed into the blood.

B. S. Levine

(2)

KOROLEVA, Ye. I.

"The elimination of phosphorus-32 via the bile obtained from a fistulated biliary duct in post-operative cholecystitis cases. III. D. E. Grodzenskii, K. S. Zamychkina, E. I. Koroleva, and R. Ya. Polceva. *Trudy Primorsk. Gidrometeorol. Inst.* 2 *Med.* (Moscow: Medzig) 1953, 234-8; *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 7081.- Each of two such fistulate patients received per os doses of $Na_2HP^{32}O_4$. At time intervals P^{32} was detd. in the whole blood, the plasma, the bile, the urine, and the feces. Specific activity was detd. from the ratios of $P^{32}:P^{31}$. Max. activity appeared in a portion of the bile collected within the first hr. of its per os intake. A considerable part of the P^{32} was eliminated *via* the urine.

B. S. Levine

RABINOVICH, R.L.; KOROLEVA, Ye.I. (Moskva)

Influence of dried milk on assimilation of food from concentrates.
Vop. pit. 20 no.4:71-72 Jl-Ag '61. (MIRA 14:7)
(FOOD, CONCENTRATED) (MILK, DRIED)

KOROLEVA, Yu.I.; KRUPNOVA, G.F.; PARIBOK, V.P.

Cells with chromosome aberrations in bean seedlings as a statistical set. TSitologiia. 6 no.3:355-357 My-Je '64. (MIRA 18:9)

1. Laboratoriya radiatsionnoy tsitologii Instituta tsitologii AN SSSR, Leningrad.

KOROLEVA, YE. M.

KOROLEVA, YE. M. -- "The Development Characteristics of the Chewing Function in Children during the Lactation Period." From the Chair of Orthopedic Stomatology, Stomatological Faculty of the Leningrad Med Hygiene Institute, Leningrad, 1956. (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis' No 43, October 1956, Moscow

KOROLEVA, Ye.M., inzh.

Occurrence of errors and the control of precision machining on internal grinding machines. Vest.mashinostr. 43 no.5:55-60 My '63. (MIRA 16:5)
(Grinding and polishing)

KOROLEVA, Ye.N.

Course of the common form of schizophrenia. Vop.klin., patog. i lech. shiz. no.1:72-74 '64. (MIRA 18:5)

1. Dispanserno-diagnosticheskiy otdel (zav. - doktor med.nauk A.G.Ambrumova) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

ARTEMOV, Yu.M., kand. ekonom. nauk; GAL'PERIN, N.S., kand. ekon. nauk; GUBIN, B.V., kand. ekon. nauk; ZHUKOV, V.N., kand. ekon. nauk; OCHKOV, M.S. kand. ekon. nauk; OSKORDOV, V.P., starshiy ekonomist; BARNGOL'STS, S.B., dotsent, kand. ekon. nauk; SIBIRYAKOV, L.Ye.; IVANOV, N.N.; RABINOVICH, M.A., ekspert; LIPSITS, V.B., kand. ekon. nauk; VOLKOV, S.I., kand. ekon. nauk; KOROLEVA, Ye.P., aspirantka; RYUMIN, S.M., red.; SUBBOTINA, K., red.; TELEGINA, T., tekhn. red.

[Planning and calculating the cost of industrial production] Voprosy planirovaniia i kal'kulirovaniia sebestoimosti promyshlennoi produktsii. Moskva, Gosfinizdat, 1961. 183 p. (MIRA 14:8)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut. 2. Sotrudniki Nauchno-issledovatel'skogo finansovogo instituta (for Artemov, Gal'perin, Gubin, Zhukov, Ochkov, Oskordov). 3. Vsesoyuznyy zaochnyy finansovo-ekonom. institut (for Barngol'ts). 4. Glavnyy bukhgalter Moskovskogo elektrozavoda (for Sibiryakov). 5. Starshiy konsul'tant Upravleniya bukhgalterskogo ucheta Ministerstva finansov SSSR (for Ivanov, Rabinovich). 6. Nachal'nik podotdela obshchikh ekonomicheskikh voprosov tsenoobrazovaniya Byuro tsen pri Gosplane SSSR (Lipsits). 7. Moskovskiy ekonomiko-statisticheskiy institut (for Koroleva)

(Costs, Industrial)

KOROLEVA, Ye.N.

Clinical psychological examination of patients with the common form of schizophrenia. Trudy Gos. nauch.-issl. inst. psikh. 43: 104-109 '65. (MIRA 18:9)

1. Eksperimental'no-psikhologicheskaya laboratoriya (zaveduyushchaya laboratoriyey - prof. B.V.Zeygarnik) i Dispanserno-diagnosticheskiy otdel (zaveduyushchaya otdelom - doktor med. nauk A.G. Ambrumova) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Moskva.

GRUNTFEST, Izrail' L'vovich, dots., kand. ekonom. nauk; ISAKOV, Vasiliy Ivanovich, prof. Prinimal uchastiye KOROLEVA, Ye.P., kand. ekonom. nauk; NOVIKOVA, S.N., red.; KAPRALOVA, A.A., tekhn. red.

[Computing machines and their use in accounting] Schetnye mashiny i ikh ispol'zovanie v uchete. Moskva, Gostatizdat, 1963. 430 p. (MIRA 16:6)
(Accounting machines)

KOROLEVA, Yelena Petrovna; KRIUSHIN, V.N., red.; CHIZHEVSKAYA, K.M., red.

[Punched card computers] Schetno-perforatsionnye mashiny. Moskva, Statistika, 1965. 189 p. (MIRA 18:8)

L 13291-66 EWT(m)/EWP(j) RM

ACC NR: AP6000324 (A) SOURCE CODE: UR/0286/65/000/021/0011/0011

INVENTOR: Zharkova, N. I.; Zamarayev, A. P.; Koroleva, Ye. S.

ORG: none

TITLE: A method for preparation of a catalyst to produce vinyl benzene. Class 12, No. 175927

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 11

TOPIC TAGS: vinyl plastic, polymerization catalyst, aromatic hydrocarbon

ABSTRACT: This Author's Certificate introduces a method for preparing a catalyst to produce vinyl benzene. Diethyl benzene is dehydrated by mixing and preforming the active components. The product yield is increased and a stable catalyst is produced by preparing it from two layers with the following composition: upper layer--68.3 %, 15 % magnesium oxide, 4.4 % copper oxide, 12.3 % sodium carbonate, lower layer--72.7 % iron oxide, 16 % magnesium oxide, 4.8 % copper oxide, 6.6 % potassium carbonate.

SUB CODE: 07/ SUBM DATE: 30Nov62/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 66.097.3 : 547.538.1.07

KOROLEVA, Yelena Sergeyevna; KUR'YANOVA, O.V., red.; SHERMUSHENKO, T.A., tekhn. red.

[High standard enterprise] Predpriiatie vysokoi kul'tury. Leningrad, Lenizdat, 1961. 47 p. (MIRA 15:3)

1. Zamestitel' sekretarya partiynogo komiteta Gosudarstvennogo optiko-mekhanicheskogo zavoda (for Koroleva).
(Leningrad--Optical trade)

GREBENYUK, R.V.; KOROLEVA, Ye.V.; SARTBAYEV, S.K.

Studying the gamasid mites of Kirghizistan. Trudy Inst.zool.i paraz.AN Kir.SSR no.7:305-307 '59. (MIRA 13:4)
(Kirghizistan--Mites)

BREGETOVA, N.G.; KOROLEVA, Ye.V.

Mites of the family Macrochelidae Vitzthum, 1930 in the fauna of the U.S.S.R. Paraz.sbor. 19:32-154 '60.
(MIRA 13:8)

1. Zoologicheskiy institut Akademii nauk SSSR.
(Mites)

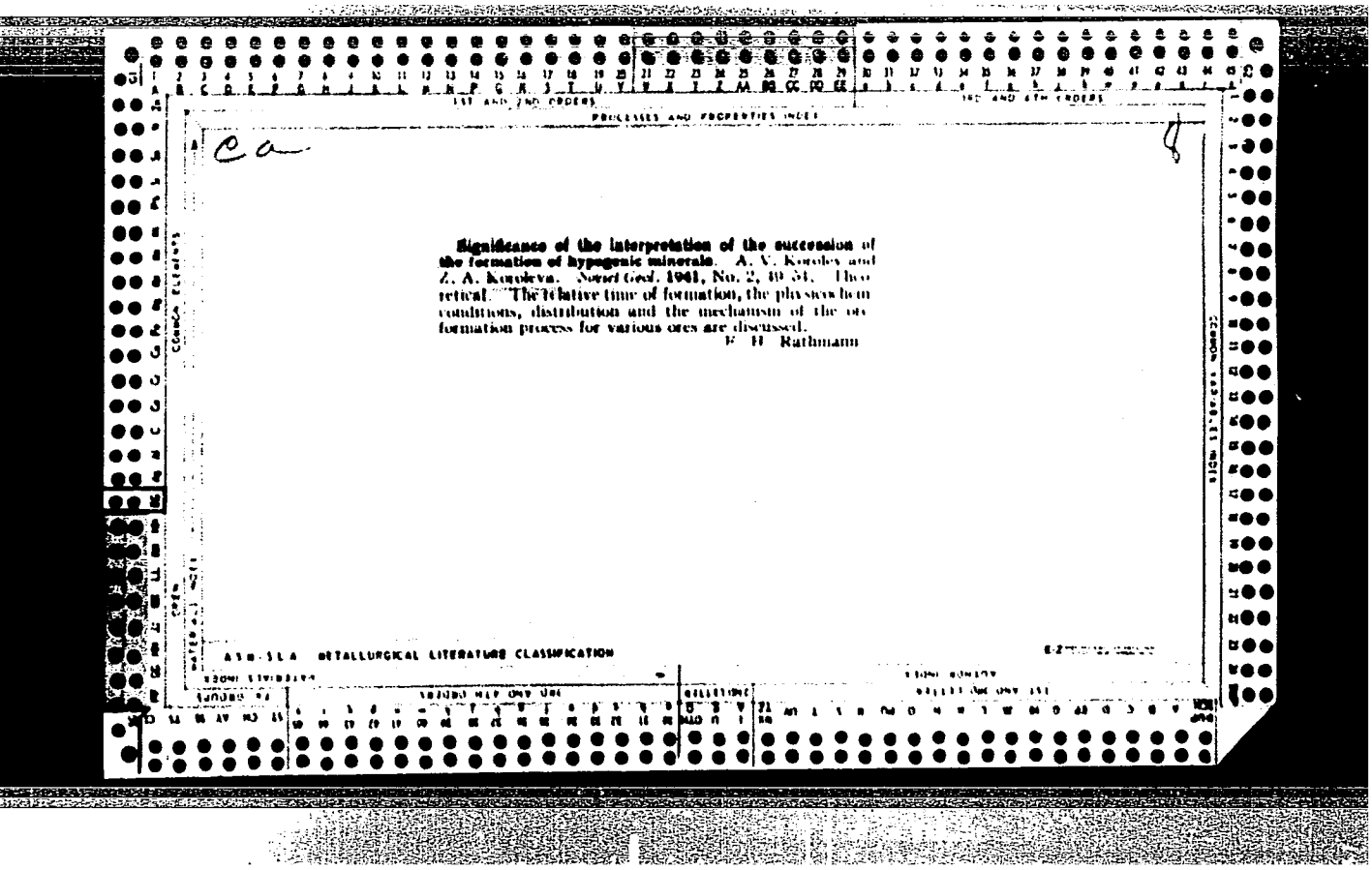
GORINA, M.Ye.; KOROLEVA, Ye.V.; PROKHOROVA, S.M.

Bibliographic index of literature on the spinning of bast fibers and the manufacture of cordage published from 1958 to 1960. Nauch.-issl.trudy TSNIILV 17:162-174 '62. (MIRA 16:10)

BREGETOVA, N.G.; KOROLEVA, Ye.V.

Mites of the genus Ololaelaps Berlese, 1904 (Acarina; Laelaptidae). Paraz. sbor. 22:61-87 '64. (MIRA 18:2)

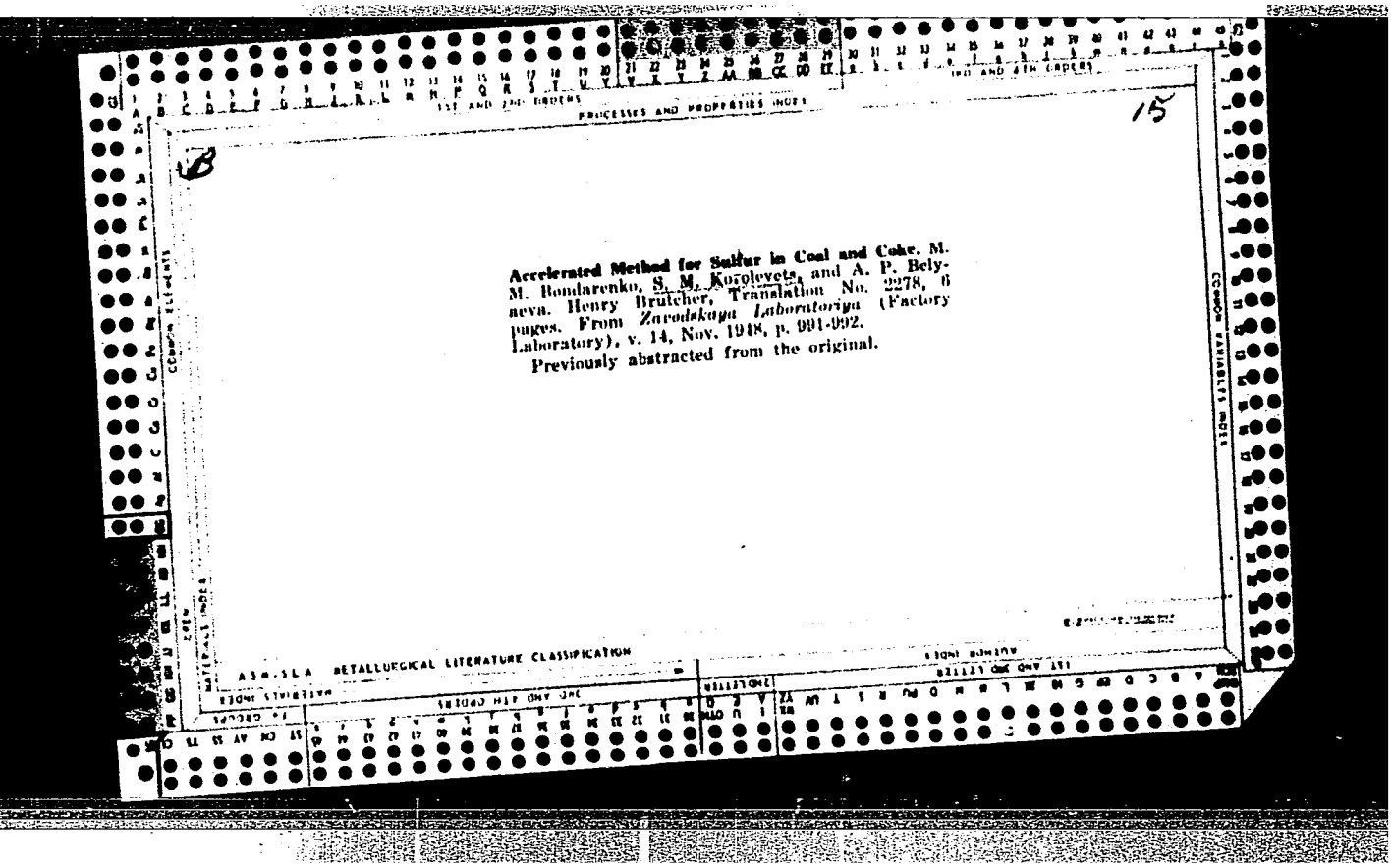
1. Zoologicheskiy institut AN SSSR.



Significance of the interpretation of the succession of the formation of hypogenic minerals. A. V. Kovalev and Z. A. Kondeva. *Sovet Geol.* 1961, No. 2, 49-54. Theoretical. The relative time of formation, the physicochemical conditions, distribution and the mechanism of the ore formation process for various ores are discussed.

F. H. Rathmann

A59-51A METALLURGICAL LITERATURE CLASSIFICATION



Accelerated Method for Sulfur in Coal and Coke. M. M. Bondarenko, S. M. Korolevets, and A. P. Belyaeva. Henry Brutcher, Translation No. 2278, 6 pages. From *Zavodskaya Laboratoriya* (Factory Laboratory), v. 14, Nov. 1948, p. 991-992.

Previously abstracted from the original.

KOROLEVA, Z. A.

USSR.

Rapid refractometric method of analyzing mixtures of solvents. E. S. Khoroshaya, G. I. Kovrigina, and Z. A. Koroleva. *Legkaya Prom.* 14, No. 9, 32–4(1954). Data are given on the use of n to det. compn. of mixts. benzene + butylacetate, benzene + butylacetate + ethylacetate, and alc. + water. Data are tabulated on the n for mixts. benzene + acetate (75% ethylacetate + 25% butylacetate). The method is good for alc.-water mixts. with n between 1.333 and 1.354, corresponding to the mixt. contg. up to 38% alc.

B. Z. Kamich

KOROLEVA, Z.A.

5

Rapid colorimetric method of determining water in solvents. E. S. Khoreskaya, A. A. Avilov, G. I. Kovrizina and Z. A. Koroleva. *Zavodskaya Lab.* 21, [illegible] (1955). Shake the sample with anhyd. $CuSO_4$ and read the resulting blue color of the hydrate colorimetrically against a [illegible] scale. G. M. Kosolapoff

AUTHORS: Glukhov, N. A., Koton, M. M., Koroleva, Z. A. SOV/79-28-12-26/41

TITLE: Synthesis and Investigation of the Polymerizability of Halogen-Substituted Styrene Derivatives (Sintez i izucheniye sposobnosti k polimerizatsii galogenzameshchennykh proizvodnykh stirola) VII. Trichloro Styrenes and Pentachloro Styrene (VII. Trikhlorstiroly i pentakhlorstirol)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 12, pp 3277-3282 (USSR)

ABSTRACT: Until now only a few patents reported on the synthesis and polymerization of trichloro styrenes (Ref 1); these papers pointed to the practical value of these styrenes as non-conductors and their importance to the synthesis of Buna-S (Ref 2). Pentachloro styrene has been little investigated as well (Ref 3). The conditions of synthesis of various isomers of trichloro styrene as well as the effect of the structure of polyhalogen styrene monomers upon the polymerizability and properties of the polymers formed have not been dealt with as yet, with the exception of a paper published by Alfrey (Al'frey-Ref 4) where the slowed-down polymerization

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of pentachloro styrene and its cause are pointed to. To fill this gap the authors systematically continued their investigations in the field of substituted styrenes and devised the synthesis of the 2,4,5- and 2,3,4-trichloro styrenes unknown in publications. Furthermore, the conditions of pentachloro styrene synthesis were improved and the process of polymerization of trichloro styrene was investigated. The polymerization was carried out dilatometrically in the block. The yield of polymers was determined by extraction with methanol from the benzene solutions and by bromination. Figure 1 shows that 2,4,5-trichloro styrene polymerizes readily (beginning at 45°). The isomeric 2,3,4-trichloro styrene (Figs 2,3) polymerizes much more difficultly. The comparison of the polymerization rates of the monomers of polyhalogen-substituted styrenes to that of unsubstituted styrene is given in figures 4 and 5. 2,3,4 and 2,4,5-trichloro-phenyl methyl carbinols were synthesized and characterized for the first time. The polymerization of tri- and pentachloro styrenes within the temperature range 45-150° was investigated. The following order is

Synthesis and Investigation of the Polymerizability of Halogen-Substituted Styrene Derivatives. VII. Trichloro Styrenes and Pentachloro Styrenes

SOV/79-28-12-26/41

arranged with respect to the polymerization rate of polyhalogen styrenes: 2,4,5-trichloro styrene > 1,2,3,4,5-pentachloro styrene > 2,3,4-trichloro styrene. It was found that the effect of isomerism of the substituents in the benzene nucleus of styrene upon the rate of polymerization increases with the increasing number of chlorine atoms. There are 5 figures and 11 references. 4 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-Molecular Compounds, Academy of Sciences, USSR)

SUBMITTED: June 23, 1957

Card 3/3

KIRSANOVA, Z.V.; KOROLEVA, Z.A.

Rubberized raincoat fabrics. Standartizatsiia 25 no.10:41 O '61. (MIRA 14:9)
(Rubberized fabrics—Standards)

KHOROSHAYA, Ye.S., kand.tekhn.nauk; KOVRIGINA, G.I., nauchnyy sotrudnik; KOROLEVA, Z.A., nauchnyy sotrudnik; ABOLTINA, E.M., nauchnyy sotrudnik; YEGOROVA, N.I., nauchnyy sotrudnik

Microchemical method of determining the degree of vulcanization of rainwear fabrics. Nauch.-issl.trudy VNIIPIK no.12:105-107 '60. (MIRA 16:2)

KOROLEVA, Z. G.

"Data on the Characteristics of Rickets in Infants During the First Months of Their Life." Cand Med Sci Voronezh State Medical Inst, Voronezh, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

MARKOV, S.S.; VALIKOVA, Ye.V.. Prinimali uchastiye: KOROLEVA, Z.I.; DERYABINA, N.V.. LYANDE, Yu.V., red.; ZAZUL'SKAYA, V.F., tekhn.red.

[Analytical control of the production in the nitrogen industries, no.12] Analiticheskii kontrol' proizvodstva v azotnoi promyshlennosti. No.12. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry. Pt.2. [Controlling the production of concentrated nitric acid made by direct synthesis] Kontrol' v tsekhe proizvodstva kontsentrirovannoi azotnoi kisloty metodom priamogo sinteza. 1960. 226 p. (MIRA 13:6)

(Nitric acid)

ZAREMBO, G.V.; KOROLEVA, Z.S.

Magnetic characteristics for the evaluation of properties of ferromagnetic materials. Zav.lab. 29 no.3:309-312 '63. (MIRA 16:2)

(Ferromagnetism)

S/032/63/029/003/010/020
B104/B186

AUTHORS: Zarembo, G. V., and Koroleva, Z. S.

TITLE: The magnetic characteristics for evaluation of the properties of ferromagnetic materials

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 3, 1963, 309 - 312

TEXT: A list of the most important magnetic characteristics which should catalogued in the ГОСТ (GOST) and ТУ(TU) standard is given: Sheet steel used in electrical engineering (GOST 802-58): curves of magnetization and dependence of the losses on the induction at 50, 400, 500 and 1000 cps; coercive force, temperature coefficients of the characteristics between -60 and +200°C. Cold-rolled electrical steel (GOST 9925-61): same as for sheet steel. Low-carbon electrical sheet steel and rods (GOST 3836-47): the magnetic characteristics should be given for field intensities of 500, 1000, 2500, 5000, 10 000, 30 000 and 50 000 a/m. Iron-nickel alloys with high magnetic permeabilities (GOST 10 160-62; ЧМТУ 5010-55 (ChMTU 5010-55)): magnetic permeability at a field intensity of 0.1 a/m; maximum permeability; coercive force and saturation induction. Alloys for permanent magnets (GOST 9575-60, 4402-48) and barium oxide

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B104/B186

The magnetic characteristics for ...

magnets (H0707003TY- N0707003TU): residual induction; coercive force; gap field intensity; magnetic moment. Ferrites with rectangular hysteresis loop: the magnetic properties should be estimated according to static and dynamic characteristics. There are 2 tables.

Card 2/2

KOROLEVETS, K.M

TUBES

"Effect of Temporary Deterioration of the Detecting Properties of Crystan Diodes Operating at High Frequencies", by S.Ye. Temkin and K.M. Korolevets, Radiotekhnika i Elektronika, No 8, August 1957, pp 1062-1070.

Report of results of the investigation of fully reversible changes in the detecting properties of crystal silicon detectors operating at microwave frequencies. This type of temporary deterioration of the properties is called "coarsening" of the detector. It is established that the latter is due to the change in the capacity of the barrier layer. The observed recuperation times are attributed to multiple capture of electrons in one of the portions of the contact region. Reference is made to the work by Hornbeck and Haynes. Phycial Review, 1955, Volume 96, pp 311-321.

Card 1/1

PEN'KOV, A.M.; KOROLEVETS, M.S., kandidat tekhnicheskikh nauk.

The use of steel cables for conveyer equipment. Sbor.trud.Inst. gor.dela AN URSR no.3:120-132 '56. (MLRA 9:8)

1. Chlen-korrespondent AN USSR (for Pen'kov)
(Conveying machinery) (Wire rope)

KOROLYUK, A. T.

"Terminology, Designations, and Elements of Drawing Applied in Descriptive Geometry." Cand Phys-Math Sci, Kiev Polytechnic Inst, Kiev-L'vov, 1953. Dissertation
(Referativnyy Zhurnal--Matematika Moscow, Feb 54)

SO: SUM 186, 19 Aug 1954

CHERNYSHEVA, Z.T.; GLOGOVSKIY, V.V.; KOROLEVICH, A.I., dots., otv. red.; KOTLYAROV, Yu.L., red.

[Methods for solving problems in descriptive geometry; textbook for students and teachers of schools of higher education] K metodike resheniia zadach po nachertatel'noi geometrii; uchebnoe posobie dlia studentov i prepodavatelei vuzov. L'vov, Izd-vo L'vovskogo univ., 1964. 100 p. (MIRA 18:4)

KOROLEVICH,M.

36453. KOROLEVICH, M., KOVARSKIY, M., TSITOVSKAYA, S., I YERKHOVA, V. Kariyes I Beremennost'.- Avt: M. Kovarskiy, S. Tsitovskaya, M. Korolevich I V. Yerkhova. Stomatologiya, 1949, No. 4, S. 25-28.

SO: Letopis' Zhurnal'nykh Statey, Vol. 49, Moskva 1949

PAVLOVSKIY, Aleksandr Alekseyevich [Paulouski, A.A.], kand.tekhn.nauk; SHCHITNIKOV, P.I. [Shchytnikau, P.I.], inzh.-gidrotekhnik, nauchnyy red.; KOROLEVICH, M.A. [Karalevich, M.A.], red.; VOROTINSKAYA, S.A. [Varatynskaia, S.A.], tekhn.red.

[Using hydraulic machinery in the drainage of White Russian swamps] Gidramekhanizatsyia na asushal'nykh rabotakh u BSSR. Minsk, 1959. 23 p. (Tavarystva pa raspausiudzhvanniu palitychnykh i navukovykh vedau Belaruskai SSR. Seryia pryrodaznauchanavukovaia, no.14). (MIRA 13:4)

(White Russia--Hydraulic engineering)

KOROLEVICH, V.S.; MOROZOVSKIY, N.G., redaktor; KANEVSKAYA, M.D., redaktor; STUDENETSKAYA, V.A., tekhnicheskiy redaktor

[Practical determination and elimination of magnetic compass deviation on marine vessels] Prakticheskoe opredelenie i unichtozhenie deviatsii magnitnykh kompasov na morskikh sudakh. Pod red. N.G.Morozovskogo. Izd. 2-e, dop. i perer. Moskva, Izd-vo "Morskoi transport," 1953. 223 p. (MLRA 8:1)
(Compass)

KOROLEVICH, V. S.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Korolevich, V. S.	"Deviation of the Magnetic Compass in a Ship" (textbook)	Baku Navigation School

SO: W-30604, 7 July 1954

Korolevich, Vikentiy Stepanovich

KOROLEVICH, Vikentiy Stepanovich; VORONOV, V.V., red.; SOKOLOVA, Ye.I., red.izd-va; TROFIMOV, A.V., tekhn.red.

[Deviation of the magnetic compass] Deviatsiia magnitnogo kompasa. Izd.2-oe, ispr.i dop. Moskva, Izd-vo "Morskoi transport," 1956. 397 p. (MIRA 11:1)

(Compass)

KOROLEVICH, Ye. M.

"Lumbar-sacral Radicle," Fel'dsher i Akusher., No. 1, 1948

"Vascular Disturbances of the Cerebellum," ibid., No. 2, 1943.

"Cerebral Vascular Disturbances," ibid., No. 3, 1943.

KOROLEVICH, Ye.M.; PETROV, V.I.

Meningeal syndrome in Rustitiskii's disease. Klin.med. 33 no.3: 81-84 Mr '55. (MLRA 8:5)

1. Iz kafedry terapii Tsentral'nogo instituta usovershenstvovaniya vrachey (zav. kafedroy prof. S.A.Posledova) i 1-go terapevticheskogo otdeleniya Gorodskoy klinicheskoy bol'nitsy No. 6 (glavnyy vrach N.S.Shevyakov).

(MYELOMA, PLASMA CELL, manifestations, meningeal synd.)
(MENINGES, in various diseases, myeloma, plasma cell)

KOROLEVICH, Ye.M., SHEVYAKOV, N.S. (Moscow)

Differential diagnosis of diseases of the lesser circulation and disorders of cerebral circulation. Vrach. delo no.5:537-539 My'58 (MIRA 11:7)

1. Gorodskaya klinicheskaya bol'nitsa No.6.
(BLOOD--CIRCULATION, DISORDERS OF)

56-34-4-52/60

AUTHORS: Bunyatov, S. A., Vrublevskiy, A., Kopylova, D. K., Korolevich, Yu. B., Petukhova, N. I., Sidorov, V. M., Skzhipchak, E., Filipkovskiy, A.

TITLE: The Emission of V^0-Particles During the Capture of K-Mesons by Nuclei in a Photoemulsion (Ispuskaniye V^0-chastits pri zakhvate K-mezonov yadrami v fotoemul'sii)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 1028 - 1030 (USSR)

ABSTRACT: A stack of Ilford G-5 emulsion, each having a thickness of 600 μ, was irradiated with $\bar{K}$-mesons with momenta of about 300 MeV/c in the bevatron at Berkeley. An examination of the stack disclosed about 3 cases of a decay of Λ^0-particles in the immediate vicinity of σ_k-stars (Refs 1, 2, 3). In this connection the authors endeavored to find a correlation between the process of production and the decay of the Λ^0-particle when they are not within the same range of vision of the microscope. The process of microscopical inspection is described. The σ_k-stars, the two-membered stars

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The Emission of V^0-Particles During the Capture of K-Mesons by Nuclei in a Photoemulsion

and all traces longer than 500 μ of single protons, which began within the emulsion layer were recorded. In this way 18 cases of the decay of Λ^0-particles were found. The authors give a short report on their search for the production processes. The production processes were found for 13 Λ^0-particles. The results of the measurements are compiled in a table. In 5 cases no producing σ_k-stars were observed. The corresponding Λ^0-particle could have formed in such a nuclear spallation caused beyond the checked range by a K^--meson which had not come to a stop. Also other possible explanations for the failure to find the producing σ_k-star are mentioned. The comparison of the decays of Λ^0_k-particles with the producing processes can be useful for the investigations of different nuclear reactions accompanying the production of Λ^0-particles as well as for the investigation of the Λ^0-particles themselves. The authors thank Ye. Gerule, Professor M. Danysh and M. I. Podgoretskiy for raising the problem and for valuable advice with respect to this work. There are 1 table and 4 references, 0 of which are Soviet.

The Emission of V^{C}-Particles During the Capture of K-Mesons by Nuclei in a Photoemulsion

56-34-4-52/60

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute of Nuclear Research)

SUBMITTED: January 16, 1958

1. Mesons--Nuclear reactions

Card 3/3

21 (7), 24 (5)

AUTHORS: Kopylova, D. K., Korolevich, Yu. B., Petukhova, N. I., Podgoretskiy, M. I.

SOV/56-36-6-64/66

TITLE: On the Determination of the Frequency of the Capture of Slow Mesons by Light and Heavy Nuclei in Photoemulsions (Ob opredelenii chastoty zakhvata medlennykh mezonov legkimi i tyazhelymi yadrami v fotoemul'siyakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 6, pp 1955 - 1956 (USSR)

ABSTRACT: When working with photoemulsions it is of importance to know the percentage of light (C,N,O) and heavy (Ag, Br) nuclei. The authors of the present "Letter to the Editor" suggest a simple and exact method. They use the nuclear capture of a stopped π^--meson. If an Auger electron is produced by the stopping of a π^--meson, the capture occurred on a heavy nucleus of the emulsion. If the star particle produced by a pion has a range of $\leq 50\mu$ (so-called sub-barrier particles), the capture may be ascribed to light particles. The stars observed are divided into 3 groups: two identifiable groups, and a third that cannot be coordinated to either of the two former; several simple relations are derived. The method was tested on 349 σ_π-stars,

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On the Determination of the Frequency of the Capture of Slow Mesons by Light and Heavy Nuclei in Photoemulsions

SOV/56-36-6-64/66

and for the capture frequency of pions on heavy nuclei the value $(63 \pm 2.8)\%$ was obtained, which agrees well with the results obtained by means of other methods. The authors thank S. A. Azimov and U. G. Gulyamov for placing material at their disposal. There are 10 references, 1 of which is Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernyk issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: February 28, 1959

Card 2/2

21 (8)

AUTHORS: Kopylova, D. K., Korolevich, Yu. B., Petukhova, N. I., Podgoretskiy, M. I.

SOV/56-37-1-42/64

TITLE: On the Problem of the Mechanism of Capture of Stopped K^--Mesons (K voprosu o mekhanizme zakhvata ostanovivshikhsya K^--mezonov)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 1(7), pp 289 - 291 (USSR)

ABSTRACT: The authors of the present paper estimate the portion of two-nucleon capture on the basis of the analysis of the number of pions observed in σ_K-stars. x denotes the unknown portion of two-nucleon interactions, α the expected percentage of escaping pions referred to the known mean path of the pions in nuclear matter under the assumption of a certain model of capture of negative K-mesons, β the experimentally observable portion of the interaction of stopped negative K-mesons in which pions are emitted. The relation $(1 - x)\alpha = \beta$ holds in this case. According to former experimental data (Ref 2), the number of two-nucleon captures can not exceed the percentage of $(49 \pm 3)\%$ of the total number of interactions. The portion of pions not participating in any interaction can be determined if the mean

free path of the pion in nuclear matter is known. It is, however, more difficult to calculate which portion of pions (which have experienced inelastic scattering in the first collision) escapes the nucleus without having been absorbed. The authors estimated the upper and lower limits of α under the assumption that all inelastically scattered pions escape the nucleus (upper limit) or are absorbed in it (lower limit). The upper limit found in this way differs only slightly from the true value of α. For the calculation of α, a certain ratio between the numbers of reactions of the type $K^- + N \longrightarrow \Lambda^0 + \pi$ and of the type $K^- + N \longrightarrow \Sigma + \pi$ is required. The authors assume $\Lambda^0/\Sigma^{\pm,0} = 0.21$ for the surface model, and $\Lambda^0/\Sigma^{\pm,0} = 0.50$ for the volume model. In order to explain the response of the results to small changes in the model of surface absorption, the case was investigated in which the K-mesons are absorbed in the depth of a nucleon radius (distant from the surface of the nucleus). The calculations led to the following results:

On the Problem of the Mechanism of Capture of Stopped K^--Mesons

SOV/56-37-1-42/64

Surface absorption:	$0.64 < \alpha < 0.75$	$0.20 < x < 0.32$
Absorption of K-mesons in the depth of a nucleon radius:	$0.62 < \alpha < 0.72$	$0.18 < x < 0.29$
Volume absorption:	$0.32 < \alpha < 0.52$	

Accordingly, the two first-mentioned models differ only slightly from each other, and the volume model offers no explanation of two-nucleon capture. The reactions of the type $K^- + N \rightarrow$ $\rightarrow \Lambda^0 + \pi$ amount to 15-35% of all one-nucleon capture reactions. Starting from the surface model of one-nucleon capture, two-nucleon capture probably amounts to 30% of all cases, and the Σ-hyperons with $E_\Sigma < 60$ Mev are strongly absorbed within the nucleus. The number of fast Σ-hyperons with $E_\Sigma > 60$ Mev (charged and neutral) amount, according to data by M. F. Kaplon, to ~3.5% of the total number of captures of negative K-mesons.

The authors thank M. Ya. Danysh for his participation in the discussion and for his information on the critical remarks by

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On the Problem of the Mechanism of Capture of Stopped K^--Mesons SOV/56-37-1-42/64

Ye. Markit. There are 8 references.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: February 27, 1959

Card 4/4

DZHANELIDZE, L.P.; MANDRITSKAYA, K.V.; SHAKHULASHVILI, O.A.; KOPYLOVA, D.K.; KOROLEVICH, Yu.B.; PETUKHOVA, N.I.[deceased]; TUVDENDORZH, D.; CHZHEN PU-IN [Chen P'u-ying]; KONSTANASHVILI, N.I.

Angular distribution of the decay products of hyperons, formed by protons in a photographic emulsion. Zhur.eksp.i teor.fiz. 38 no.3:1004-1005 Mr '60. (MIRA 13:7)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Particles(Nuclear physics))
(Particle track photography)

86895

S/056/60/039/005/011/051
B029/B077

24.6900

AUTHORS: Dzhanelidze, L. P., Kopylova, D. K., Korolevich, Yu. B., Kostanashvili, N. I., Mandritskaya, K. V., Petukhova, N. I. (Deceased), Podgoretskiy, M. I., Tuvtendorzh, D., Shakhulashvili, O. A., Chzhen Pu-in

TITLE: Formation of Charged Hyperons During Interactions of 9-Bev Protons With Nuclei of a Photoemulsion

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 5(11), pp. 1237-1241

TEXT: The authors investigated the angular distribution of positive and negative pions formed in decays of $\Sigma^{\pm}$ hyperons formed in their turn by the interaction of 9-Bev protons with photoemulsion nuclei. The authors irradiated two emulsion chambers: (10 . 10 . 6)cm^3 (chamber 1), and (10 . 15 . 4)cm^3 (chamber 2). These chambers consist of БР-400 НИКФИ (BR-400 NIKFI)-type emulsion layers. 9-Bev protons of the proton-synchrotron of the Laboratoriya vysokikh energiy OIYaI (High-energy Laboratory of the Joint Institute of Nuclear Research) were used to bombard the

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emulsions. Angular distribution of the decay products of $\Sigma^{\pm}$ hyperons: V. G. Solov'yev (Ref. 2) has already emphasized the importance of investigating the longitudinal asymmetry found in the angular distribution for pions formed during a hyperon decay. Fig. 1 shows the angular distribution of pions relative to its direction of motion in the rest system of the hyperon; the authors paid special attention to the calculation of these values. If the angular distribution is approximated by $1 + a \cos \theta^*$, then the coefficient of asymmetry has the form $a \equiv \alpha \bar{P}_{\Sigma}$ $= \frac{3}{N} \sum_{i=1}^{N} \cos \theta_i^* \pm \left(\frac{3 - a^2}{N}\right)^{1/2} = 0.03 \pm 0.2$; α denotes the coefficient of asymmetry for total hyperon polarization, $\bar{P}_{\Sigma}$ the vector component of the mean Σ hyperon polarization in the direction of motion, θ_i^* the angle between the directions of emission of hyperon and pion in the rest system of the hyperon, and N the number of hyperons observed. The following holds for the angular distribution of pions relative to the production level of Σ hyperons: $b = 2(N_{forward} - N_{backward})/(N_{forward} + N_{backward}) = 0.36 \pm 0.22$.

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Fig. 2 shows the angular distribution of $\Sigma^{\pm}$ hyperons with necessary corrections. The ratio of the number of positive and negative hyperons is $N_{\Sigma^+}/N_{\Sigma^-} = 3.2 \pm 0.1$. All black and gray tracks were investigated in 76 stars which displayed decaying stars according to the mode $\Sigma^{\pm} \rightarrow \pi^{\pm} + n$. Four pair productions of a Σ^+ hyperon and a K^+ meson, two pair productions of K^+ and K^- mesons, and a production of two hyperons in a single star were found. A star of the type (17 + 7p) had two gray particles which decay into a relativistic particle during motion. This particle might have been a hyperon. The annihilation of one antiproton was observed in the extension of the selected rays. The authors thank E.L. Andronikashvili and V. I. Veksler for their interest, and the operators of the synchrotron and all laboratory assistants for taking part in the evaluation of the photoemulsions. There are 4 figures and 6 Soviet references.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research). Institut fiziki Akademii nauk Gruzinskoy SSR (Institute of Physics, Academy of Sciences Gruzinskaya SSR). Tbilisskiy gosudarstvennyy universitet (Tbilisi State University)

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86895

Formation of Charged Hyperons During Interactions of 9-Bev Protons With Nuclei of a Photoemulsion

S/056/60/039/005/011/051
B029/B077

SUBMITTED: July 9, 1960

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DZHANELIDZE, L.P.; KOPYLOVA, D.K.; KOROLEVICH, Yu.B.; KOSTANASHVILI, N.I.; MANDRITSKAYA, K.V.; PETUKHOVA, N.I. [deceased]; PODGORETSKIY, M.I.; TUVDENDORZH, D.; SHAKHULASHVILI, O.A.; CHZHEN PU-IN [CHEN P'U YING]

Production of charged hyperons by 9 Bev. protons interacting with nuclei of photo emulsion. Zhur.eksp.i teor.fiz. 39 no.5:1237-1241 N '60. (MIRA 14:4)

1. Ob"yedinennyy institut yadernykh issledovaniy, Institut fiziki AN Gruzinskoy SSR i Tbilisskiy gosudarstvennyy universitet.
(Mesons) (Protons) (Photography, Particle track)

AUTHORS: Korolevich, Yu.S., Grigorenko, Ya.M. SOV-21-58-8-5/27

TITLE: On the Asymptotic Solution of the Problem of Axisymmetrical Deformation of a Conical Shell with Linearly Varying Thickness (Ob asimptoticheskom reshenii zadachi osesimmetrichnoy deformatsii konicheskoy obolochki lineyno peremennoy tolshchiny)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 8, pp 821-825 (USSR)

ABSTRACT: The authors consider elastic axisymmetric deformation of a conical shell with linearly varying thickness starting from the linear theory of thin shells based on the hypotheses of Kirchhoff's law (Ref. 1.2). For a conical shell with linearly varying thickness, the rigorous solution can be presented in the form of hypergeometrical functions. Kovalenko (Ref. 1) introduced a geometrical criterion for the similarity of a strained state $\varkappa$, and hypergeometric functions entering into the solution are tabulated for the values of $\varkappa \leq 5$. For the higher values of $\varkappa$, series converge slowly. The authors give an approximate solution of the similar problem for the high $\varkappa$-values, making use of the method of asymptotic integration developed and employed by Novozhilov (Ref. 2). The accuracy of the method as applied to the problem under con-

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On the Asymptotic Solution of the Problem of Axisymmetrical Deformation of a Conical Shell with Linearly Varying Thickness

sideration is also estimated and a numerical example of calculations is presented.
There are 2 schematic diagrams, 1 graph and 3 Soviet references.

ASSOCIATION: Institut stroitel'noy mekhaniki AN UkrSSR (Institute of Construction Mechanics of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, G.M. Savin

SUBMITTED: February 19, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Conical shells--Deformation 2. Conical shells--Analysis
3. Mathematics--Applications

KONOVICH, Yu. S., Cand Tech Sci --(diss) "Asymptotic solution for a conical shell of linear variable thickness and its application to the design of machine parts." Kiev, 1959. 6 pp (Acad Sci UkSSR. Inst of Construction Mechanics). 110 copies (KL, 38-59, 116)

KOROLEVICH, Yu.S. [Korolevych, IU.S.] (Kiyev)

Asymptotic solution of the problem of axisymmetric deformation of a conic shell with linearly-variable thickness. Prykl. mekh. 5 no.1:106-113 '59. (MIRA 12:6)

1. Institut budivel'noi mekhaniki AN URSR.
(Elastic plates and shells)

KOROLEVICH, Yu.S. [Korolevych, IU.S.] (Kiyev); KOSTYUK, Z.D. (Kiyev); ZHURAVEL', A.Ye. [Zhuravel', O.O. (Kiyev)

Investigating stresses in a turbine semishaft. Prykl. mekh. 5 no.3:330-336 '59. (MIRA 13:2)

1.Institut stroitel'noy mekhaniki AN USSR.
(Turbines--Testing)

KOROLEVO, M. V.

2000

1361. CHEMICAL ACTIVITY OF SOLID FUELS. 2. Korolova, M.V. (Trud. Gos. nauch.-issled. proekt. Inst. Azot. Prom. (Proc. Inst. Nitrogen Ind., [illegible] 1953, (2), 111-131; abstr. in Ref. Zh. Khim. (Ref. J. Chem., [illegible] (2), 36921). The reaction activity [illegible] vol. 19, 3010) of various [illegible]

[illegible]

[illegible] activity increases, passes through a maximum, and decreases. Reduction of carbon dioxide takes place both at the surface and inside the pieces of fuel.

LFH

VOLKHOV, I.M.; IVANOV, V.M.; KUZNETSOV, Yu.A., otv. red.; KOROLEVSKAYA, B.N., red.; OVCHINNIKOVA, T.K., tekhn.red.

[Lysaya gabbro-pyroxenite-dunite intrusive complex in the Western Sayan Mountains] Lysogorskii gabbro-piroksenit-dunitovoi [sic] intruzivnyi kompleks Zapadnogo Saiana. Otv. red. IU.A.Kuznetsov. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1963. 99 p. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Sayan Mountains--Geology)

KUTOLIN, V.A.; KUZNETSOV, Yu.A., otv. red.; KOROLEVSKAYA, B.N., red.; OVCHINNIKOVA, T.K., tekhn. red.

[Trap rock formation in the Kuznetsk Basin] Trappovaia formatsiia Kuzbassa. Otv. red. IU.A.Kuznetsov. Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1963. 116 p. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Kuznetsk Basin—Rocks, Igneous)

KULIKOV, A.I.; KURLINA, I.P.; POLYAKOV, I.M.; SHIPINOV, N.A.; GARNOVSKAYA, G.N. [deceased]; FEOFILOV, Ye.Ye.; KOROLEVSKAYA, M.F.; PETROVA, A.I.

Effect of the composition of shale phenols on the process of nitration and pesticidal properties of nitro products. Khim. i tekh. gor. slan. i prod. ikh perer. no.8:167-174 '60. (MIRA 15:2)

(Phenols)
(Pesticides)
(Nitration)

KOROLEVSKAYA, N.S.; MIL'NER, A.S.

Magnetic properties of magnetite at low temperatures. Fiz.met. i metalloved. 3 no.186-188 '56. (MLRA 9:11)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo. (Magnetite--Magnetic properties) (Low temperature research)

KORNIL'YEV, V.P.; KOROLEVSKIY, A.P.

Apparatus with a photoelectronic automatic device for examining conditioned response activity in small animals. Bul. eksp. biol. i med. 56 no. 7:113-116 Jl'63 (MIRA 17:3)

1. Iz Instituta biologicheskoy fiziki (dir. - chlen-korrespondent AN SSSR G.M.Frank) AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

ACC NR: AP6028171 SOURCE CODE: UR/0205/66/006/003/0411/0417

AUTHOR: Livshits, N. N.; Korolevskiy, A. P.

ORG: Institute of Biophysics, AN SSSR, Moscow (Institut biologicheskoy fiziki AN SSSR)

TITLE: Specific effects of various kinds of irradiation on animal higher nervous activity 19

SOURCE: Radiobiologiya, v. 6, no. 3, 1966, 411-417

TOPIC TAGS: rodent, rat, central nervous system, induced radiation effect, particular radiation biologic effect, radiation tissue effect, conditioned reflex

ABSTRACT: The study deals with comparative effects of gamma, neutron and proton irradiation of varying strength (to 300 rad) on conditioned reflex activity of mice and rats. Upon a conditioned stimulation, the animals moved to a bowl set on an upper level with a 35° slope. The latency reaction period, speed of motion and length of the animals' stay at the bowl were registered automatically prior to and after the tests, which were conducted in groups of 5 animals distributed according to their type of higher nervous activity. In addition to the above, the absence of reaction and number of balancing and paradoxal reactions were also counted. The average values for each index were determined from 50 tests per 5 mice. The radiation effect was qualitatively the same but quantitatively different. After irradiation with neutrons, the laten-

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UDC: 577.391:591.51

ACC NR: AP6028171

period increased in the overwhelming majority of animals and the speed and length of the animals' stay at the bowl decreased. The number of intermediate stage phenomena increased as did that of absent reactions, thus indicating a weakening of stimulatory processes. Gamma irradiation had a weaker effect and occasionally led to sharpened reflexes. The effect of protons was weakest and was also different. In rats irradiated with 150 rad, some indices of the stimulatory process increased, due probably to imbalance between stimulation and deceleration. This study method permits a qualitative comparison of the irradiation effects from various sources through serial comparison. The disturbance in higher nervous activity of these rodents subjected to total gamma, neutron (1.25 Mev) and proton (510 Mev) irradiation at various doses was greater, the greater the linear density of ionization. The RBE was > 1 for neutrons and < 1 for protons. Orig. art. has: 6 figures and 4 tables.

SUB CODE: 06, 07, 18/ SUBM DATE: 07Mar65/ ORIG REF: 009/ OTH REF: 002

Card 2/2

L 07483-67 EWT(m) GD

ACC NR: AT6025380 SOURCE CODE: UR/0000/66/000/000/0138/0153

AUTHOR: Korolovskiy, A.P.

34
B+1

ORG: none

19

TITLE: Characteristics of the effect of different types of ionizing radiation on the higher nervous activity of small animals. Comparative effect of fast neutrons, protons, and gamma rays in a dose of 300 rad. (Report 1)

SOURCE: AN SSSR. Institut biologicheskoy fiziki. Vliyaniye faktorov kosmicheskogo poleta na funktsii tsentral'noy nervnoy sistemy (Effect of space flight factors on functions of the central nervous system). Moscow, izd-vo Nauka, 1966, 138-153

TOPIC TAGS: mouse, rat, radiation biologic effect, gamma irradiation, neutron irradiation, ionizing irradiation, central nervous system, conditioned reflex, reflex activity, neurophysiology, blood

ABSTRACT:
A series of experiments was conducted to compare the effect of CNS function (in mice and rats) of different types of ionizing radiation: fast neutrons, Co^{60} gamma rays, and 510-Mev protons in doses of 25, 150, and 300 rad. This article deals with the comparative effect on the conditioned reflex activity of mice of a 300-rad dose of fast neutrons, gamma rays or 510-Mev protons (for radiation parameters see Table 1).

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Table I...

Type of radiation	Dose, rad	Dose power, rad/hr
Co^{60} gamma rays	300	1560.6
Neutrons (1.25 Mev) + gamma rays	234.8 ± 64.6	258.0
510-Mev protons	300	3348.0

The conditioned reflex-motor method with a drinking reflex was used. The animal reacted to a conditioned stimulus by running up a 30° ramp to a drinking bowl. The conditioned-reflex stereotype included positive conditioned stimuli -- sound and light-- and a differentiated tone stimulus. An automatic device (the author's invention) was used to produce the stimuli and record the main indices of the conditioned-reflex reaction. Conditioned-reflex activity of each animal was determined in twenty experiments after establishment of

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the reflex. The same number of tests was performed after irradiation (except when neutron irradiation caused acute radiation sickness and death). Mature male mice of the CC_{57} (B1) strain, weighing 16--18 g, were used.

It was found that acute whole-body irradiation of mice with 300 rad of fast neutrons, Co^{60} gamma rays and 510-Mev protons caused different changes, both in kind and degree, in conditioned motor drinking reflexes. The various types of ionizing radiation were arranged in descending order of effectiveness as follows: neutrons>gamma rays>protons. Experimental results showed that both neutron and gamma irradiation weakened nervous system excitation processes, as manifested in an increase in the latent period of positive reflexes, decrease in the strength of the conditioned reflex, increase in the number of cases of reflex elimination, and disruption of the correct relationships between strength of stimulus and intensity of response. These phenomena were all more pronounced for neutron-irradiated animals than for gamma-irradiated animals. On the whole, proton irradiation caused the same type of changes as gamma irradiation, although they were less pronounced in the proton-irradiated group. An exception was the strength of the conditioned reflex, which increased in proton-irradiated animals

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and was not correlated with decrease in the duration of the drinking reaction or with increase in the latent period of the conditioned reflex

Neutron irradiation intensified differentiation processes, according to all indices of these reactions. It was postulated that this intensification was caused by the cumulative effect of protective and "internal" inhibition. In contrast, after gamma-irradiation and proton-irradiation differentiation was intensified for some indices-- the rate of running across the cage and the duration of the drinking reaction-- but depressed for another index-- the latent period of the reaction. This depression was more pronounced for proton-irradiated animals.

It was concluded that the types of ionizing radiation studied cause disruption of both nervous processes (excitation and inhibition). Neutron and gamma irradiation cause more severe damage to the excitation process, and proton irradiation to the inhibition process. It is possible that disruption of the inhibition process in neutron-irradiated animals is camouflaged by the development of protective inhibition.

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The leukopenic reaction was more pronounced in neutron-irradiated animals. After gamma-irradiation the process of leukocyte recovery in peripheral blood was fairly active. However, in the proton-irradiated group the leukocyte content did not show signs of recovery. Parallelism was established between the severity of nervous system reaction to irradiation and the degree of change in peripheral blood composition depending on linear energy loss. Orig. art. has: 12 figures and 5 tables.

[W.A. No. 22; ATD Report 66-99]

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33
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AUTHOR: Korolevskiy, A. P.

19

ORG: none

TITLE: Characteristics of the effect of different types of ionizing radiation on the higher nervous activity of small animals. Comparative effect of fast neutrons, protons and gamma-rays in dose of 150 rad. (Report 3)

SOURCE: AN SSSR. Institut biologicheskoy fiziki. Vliyaniye faktorov kosmicheskogo poleta na funktsii tsentral'noy nervnoy sistemy (Effect of space flight factors on functions of the central nervous system). Moscow, Izd-vo Nauka, 1966, 165-179

TOPIC TAGS: radiation biologic effect, ionizing irradiation, neutron irradiation, gamma irradiation, rat, reflex activity, conditioned reflex, blood

ABSTRACT:
The last report in this series of comparative radiation studies dealt with the effects on conditioned reflex motor activity in rats of irradiation with fast neutrons, protons, or gamma rays in a dose of 150 rad. Male rats (August strain) weighing 150--180 g were used. As in the two previous experiments, rats were classified by reflex characteristics and grouped to ensure uniform composition of the groups. The

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animals were subjected to acute whole-body irradiation, the parameters of which are given in Table 1.

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Table 1

Type of radiation	Dose, rad	Dose power, rad/hr
Co^{60} gamma rays	150.0	1230.0
Neutrons (1.25 Mev) + gamma rays	107 ± 42.0	236.0
510-Mev protons	150	3348.0

Experimental results showed that acute whole-body irradiation of rats caused different changes in motor drinking reflexes depending on the type of radiation. A scale of decreasing effectiveness of irradiation could be constructed as follows: neutrons>gamma rays>protons. Excitation processes in neutron-irradiated rats were more severely disrupted than in gamma-irradiated rats. In addition, the latent period of the reaction to a conditioned stimulus increased more sharply in neutron-irradiated rats, and there were more reflex eliminations in this

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group. Furthermore, neutron-irradiated rats suffered more disruptions of the correct relationships between strength of stimulus and degree of response than the other two groups. In general, it was found that gamma irradiation produced the same type of changes as neutron irradiation, but they were less pronounced. Proton irradiation produced relative intensification of the excitation process, according to most of the indices.

The effect of neutrons, gamma rays and protons caused disruption of both excitation and inhibition processes. Neutrons and gamma rays damage the excitation process more severely, while protons affect the inhibition process. Once again parallelism between the dependence of disruptions of conditioned-reflex activity on linear energy loss and

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hemodynamic shifts was demonstrated. Leukopenia was more pronounced for neutron-irradiated rats (see Fig. 1).

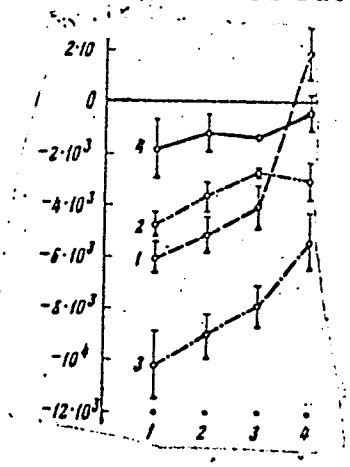

Fig. 1. Dynamics of changes in leukocyte content in peripheral blood after the influence of neutron, proton, and gamma irradiation in a dose of 150 rad. On the abscissa-- time in weeks. On the ordinate-- absolute average deviation of the number of cells from the average initial level. Vertical

lines on the curves are errors of average values. 1—gamma rays, 2— protons, 3— neutrons, 4— control.

Erythrocyte changes in irradiated rats are shown in Fig. 2.

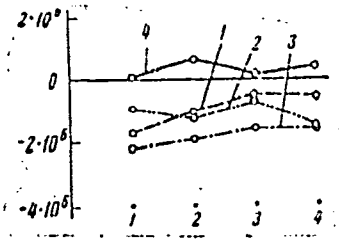

Fig. 2. Dynamics of changes in erythrocyte content in peripheral blood after the influence of neutron, proton, and gamma irradiation in a dose of 150 rad. (same designations as preceding figure) Orig. art. has: 12 figures and 3 tables. [W.A. No. 22; ATD Report 66-99]

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AUTHOR: Korolevskiy, A. P.

31
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ORG: none

TITLE: Characteristics of the effect of different types of ionizing radiation on the higher nervous activity of small animals. Comparative effect of fast neutrons and gamma rays in a dose of 25 rad. (Report 2)

SOURCE: AN SSSR. Institut biologicheskoy fiziki. Vliyaniye faktorov kosmicheskogo poleta na funktsii tsentral'noy nervnoy sistemy (Effect of space flight factors on functions of the central nervous system). Moscow, Izd-vo Nauka, 1966, 154-164

TOPIC TAGS: radiation biologic effect, neutron irradiation, gamma irradiation, mouse, reflex activity, conditioned reflex, blood neurophysiology

ABSTRACT:

This article, the second in a series of three comparative studies of radiation effects, follows the same procedure outlined previously, with the exception that mice in this series of experiments were irradiated with fast neutrons and gamma rays only (see Table 1 for radiation parameters).

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Table 1.

Type of radiation	Dose, rad	Dose power, rad/hr
Co^{60} gamma rays	25	360.0
Neutrons (1.25 Mev) + gamma rays	19.5 ± 5.5	258.0

In both groups of animals changes in conditioned reflex activity were similar in type; only the degree of disruption of activity varied with the type of radiation. For instance, weakening of excitation processes in both neutron- and gamma-irradiated animals was expressed in increase in the latent period of conditioned reflex reactions and decrease in the speed at which animals ran across the cage. In general, disruption of nervous activity was greater for neutron-irradiated mice. In addition, the erythrocyte count in peripheral blood decreased only in the group exposed to fast neutrons.

Experimental results showed that acute whole-body irradiation of mice with a 25-rad dose of fast neutrons produced more

significant changes in motor drinking reflexes than the same dose of gamma rays. In neutron-irradiated animals excitation processes were weakenened more than in gamma-irradiated animals. The latent period of the conditioned reflex reaction in neutron-irradiated mice increased more sharply, more cases of reflex elimination were observed, and more disruptions of the correct relationship between strength of stimulus and intensity of response occurred in this group. In animals exposed to gamma radiation, increase in the latent period, some decrease in running speed, and increase in the number of reflex eliminations in the second ten-day period after irradiation alternated with improvement in these indices, as compared with original background data. Such phases of improvement in some indices of nervous system activity were not observed in the neutron-irradiated group; for these animals only some decrease in the number of avoidance reactions was noted.

At first glance the discrepancy between the observed increase in number of reflex eliminations for neutron-irradiated animals (indicating deterioration of higher nervous activity) and the decrease in number of avoidance reactions (indicating improvement of nervous activity) seems inexplicable. It was suggested that the complete absence of a reaction to conditioned stimulus represents a more severe disruption of the

excitation process than an avoidance reaction (inhibition of the last step of the response to stimulus). Therefore, it is understandable that in the neutron-irradiated group, which experienced greater weakening of the excitation process, the stronger reaction of reflex elimination was more frequently observed.

After gamma irradiation depression of differentiation processes was observed in experimental animals: After neutron irradiation, however, differentiation processes intensified according to some indices (although more complex criteria seem to indicate the defective character of active inhibition in this neutron-irradiated group). Intensification of differentiation processes here is explained by the cumulative effect of so-called "internal" inhibition and protective inhibition, the latter much more pronounced among neutron-irradiated animals.

Results of these experiments agree with the first series of tests (with 300-rad doses of neutrons, protons, and gamma rays), in which the parallelism between dependence of disruptions of conditioned reflex activity on linear energy loss on one hand, and hemodynamic shifts on the other was demonstrated. Orig. art. has: 12 figures and 1 table. [W.A. NO. 22; ATD Report 66-997]

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[Sailing] Parusnyi sport. Moskva, Gos.izd-vo "Fiskul'tura i sport," 1955. 358 p. (MLRA 8:12)
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